REMARKS/ARGUMENT

This Supplemental Preliminary Amendment is being submitted to reinstate subject matter dependency that was modified with the initial Preliminary Amendment which removed multiple dependencies. Accordingly, the present amendment is submitted to restore subject matter dependency, while eliminating multiple dependent claims, in order to reduce the government filing fee. Entry of the amendment is respectfully requested.

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231, on November 1, 2001

Samuel H. Weiner
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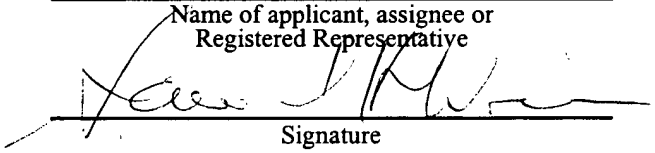
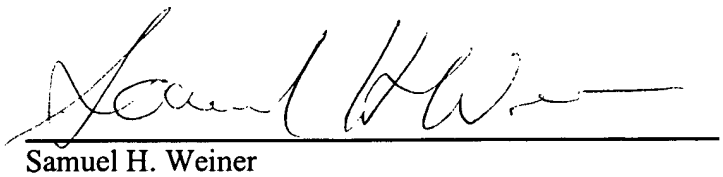


Signature

November 1, 2001
Date of Signature

Respectfully submitted,



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APPENDIX B

VERSION WITH MARKINGS TO SHOW CHANGES MADE
37 C.F.R. § 1.121(b)(iii) AND (c)(ii)

CLAIMS:

34. (Amended) A multi-wavelength generating apparatus according to [any of claims] claim 25, characterized by further comprising:

a first branching means located at an input of said modulating means for branching said input light into a signal light and a monitoring light,

a second branching means inputted said signal light through said modulating means thereto for branching output light through said modulating means into the signal light and another monitoring light,

means for photo-electrically converting a power level of said monitoring light into a first electrical signal,

means for photo-electrically converting a power level of said another monitoring light into a second electrical signal, and

means for supplying a bias voltage based on said first and second electrical signal to said modulating means so as to constantly maintain the ratio of said signal light at said input and output of said modulating means.

41. (Amended) A coherent multi-wavelength signal generating apparatus according to claim 38, characterized in that:

when a band of a receiver is defined as Be[Hz], a demultiplexing band of a demultiplexer located before the receiver is defined as B_o[Hz], a signal mark rate is defined as M, a signal light intensity of an output from an i-th modulator is defined as P(i) [dBm], [a] an intensity of a stimulated emission light in the output from this modulator is defined as Pc(i) [dBm], an intensity of a spontaneous emission light in the output from this modulator is defined as Ps(i) [dBm], an equivalent current flowing through the receiver is defined as Ieq[A], a rate of leakage from a j-th port to an i-th port of said multiplexer is defined as XT(i), a light intensity of a cross talk signal from said multiplexer is defined as Px(i) [dBm], shot noise in signal components is defined as Ns, beat noise between the signal components and the spontaneous emission light is defined as Ns-sp, beat noise between the signal components and the cross talk signal light is defined as Ns-x, beat noise between spontaneous emission lights is defined as Nsp-sp, beat noise between the cross talk signal light and the spontaneous emission light is defined as Nx-sp, and thermal noise from said receiver is defined as N_{th};

said control means controls the shape of the spectrum of the multi-wavelength light output from said multi-wavelength light source so that a signal-to-noise ratio SNR for outputs from said modulators meets the following equations:

$$SNR = S/(Ns+Ns\text{-}sp+Nx\text{-}sp+Nsp\text{-}sp+Ns\text{-}x+N_{th})$$

$$Ps(i) = RIN(i)+10\log_{10}Be+Pc(i)\pm 10\log_{10}M$$

$$Px(i) = \Sigma P(j)\cdot XT(j)$$

$$S = ((e\eta/h\nu)Pc(i))^2$$

$$Ns = 2e((e\eta/h\nu)P(i))Be$$

$$Ns\text{-}sp = 4(e\eta/h\nu)^2Pc(i)Ps(i)Be/Bo$$

$$Nx\text{-}sp = 4(e\eta/h\nu)^2\ Px(i)Ps(i)Be/Bo$$

$$Ns\text{-}x = (e\eta/h\nu)^2Pc(i)Px(i)$$

$$N_{th} = Ieq^2Be$$

where P(i), Pc(i), and Ps(i) in S, Ns, and Ns-sp are expressed in W using a linear notation.

48. (Amended) A multi-wavelength light according to claim 45, characterized in that:

said first and second modulating means[/said modulating means] executes such modulations that side modes are output so that the optical powers of output wavelengths at outputs of said polarization multiplexing means[/said modulating means] are substantially equal.